

**STATE FOREST LAND  
ENVIRONMENTAL CHECKLIST**

**Purpose of Checklist:**

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

**Instructions for Applicants:**

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

**Use of checklist for nonproject proposals:**

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

**A. BACKGROUND**

1. Name of proposed project, if applicable:

*Timber Sale Name:*                      **Sock of Gold**                      *Agreement #:* **30-078670**

2. Name of applicant: **Department of Natural Resources**

3. Address and phone number of applicant and contact person:

**DNR Northwest Region**    **Contact Person: Candace Johnson**  
**919 North Township Street**    **Telephone: 360-856-3500**  
**Sedro Woolley, WA 98284**  
**360-856-3500**

4. Date checklist prepared: **08/11/2005**

5. Agency requesting checklist: **Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

a.            *Auction Date:*    **11/13/2006**  
b.            *Planned contract end date (but may be extended):*                      **9/30/2008**  
c.            *Phasing:*    **Does not apply**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

**Timber Sale**

a.            *Site preparation:*    **Treatment to be assessed in 2-3 years**  
b.            *Regeneration Method:*    **Hand-plant with conifer seedlings**  
c.            *Vegetation Management:*    **Treatment to be assessed in 3-5 years**  
d.            *Thinning:*    **Treatment to be assessed in 10-15 years**

**Roads:**

**All newly constructed roads associated with this timber sale will be abandoned at contract termination with the exception of 530 feet of optional road that may be used with a future timber sale but will be abandoned afterwards. The CH-19 road will remain open and will continue to be used for future timber harvests and management activities. The CH-19 road beyond where it enters the sale area, CH-19017, CH-1918, CH-1907-07, CH-1919, CH-1919-01 and the CH-1920 roads will be abandoned upon completion of harvest. See Road Plan available at DNR's Northwest Region office for further details.**

**Rock Pits and/or Sale:**

**The CH-45 hardrock pit will continue to be used for roads on future timber harvests and road maintenance activities.**

Other: None

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐ 303 (d) – listed water body in WAU: ☐ temp ☐ sediment ☐ completed TMDL (total maximum daily load):  
☐ Landscape plan:  
☐ Watershed analysis:  
☐ Interdisciplinary team (ID Team) report:  
☒ Road design plan: Available at DNR Northwest Region office dated February 20, 2006  
☒ Wildlife report: Wildlife Biologist Memo available at DNR Northwest Region office  
☐ Geotechnical report:  
☐ Other specialist report(s):  
☐ Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):  
☒ Rock pit plan: See road design plan available at DNR Northwest Region office  
☒ Other: State Soil Survey, 1992; Forest Resource Plan & Environmental Impact Statement, July 1992.  
Habitat Conservation Plan & Environment Impact Statement, September 1997.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known

10. List any government approvals or permits that will be needed for your proposal, if known.

☐ HPA ☐ Burning permit ☐ Shoreline permit ☐ Incidental take permit ☒ FPA # \_\_\_\_\_ ☐ Other:

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:

**Considered Area:** Approximately 140 acres of approximately 70-year-old timber near Lake Chaplain in the West Cascade Western Hemlock Vegetation Zone was considered for harvest. The Sock of Gold timber sale is a one-unit regeneration harvest that encompasses 83 gross acres. The harvest unit is surrounded by state land and City of Everett land. Mature stands similar to the harvested stand, a thinned 54-year-old stand and a large, forested wetland complex surround the unit. The unit is bounded by type 3 streams and forested wetlands. Several type 4 and 5 streams and forested wetlands are contained within the unit. The type 3 streams have 160-foot site index no-harvest buffers, and the type 4 streams have 100-foot no-harvest buffers. Wetlands larger than one acre have 160-foot buffers and wetlands between 0.25 and one acre have 100-foot buffers. Trees were marked for harvest in the wetland buffers to leave a minimum of 150 square feet of basal area per acre in the buffers. Harvested trees will be shovel and cable yarded, and there will be designated skid trails for rubber tire skidders. The unit will be replanted with Douglas fir and western redcedar.

Sale area:

Unit 1:

Gross acreage = 83  
Leave tree acreage deduction = 5.2  
Net acreage = 77.8

Right of Way:

ROW = 1.0 acres

The ROW is approximately 710 feet of road length outside of unit TS tags x 60 feet. The ROW extends through the stream and wetland buffers that divide the unit.

City of Everett ROW = 1.2 acres

The Diversion Dam Road ROW is approximately 1320 feet long and 40 feet wide.

Sale Total:

Gross acreage (including State and City of Everett ROW) = 85.2 acres  
Leave tree acreage deduction = 5.2 acres  
Net acreage = 80.0 acres (Net is gross minus tagged Leave Tree area)

Est. Volume: 4,236 mbf

Logging System: Ground-based and cable

Landings: Approximately 7

Roads: see A.11.c.

Rock Pits and/or sales: Rock for road construction will be taken from the existing CH-45 hardrock pit. Development will involve drilling, shooting and processing rock to generate ballast rock.

Special Forest Product Sales: None

Other Related Actions: None

- b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

Pre-Harvest Stand Description:

The proposed sale consists primarily of naturally regenerated 70-year-old timber averaging 150 feet tall with average basal area of approximately 280 square feet per acre. Western hemlock, Douglas fir and western redcedar account

for approximately 50 percent, 45 percent and 5 percent of the volume respectively. The stand structure is simple; a single layer canopy and few snags.

**Type of Harvest:**

The proposal is a regeneration harvest with 8.9 Legacy Retention trees per acre (7% of pre-harvest trees greater than or equal to 12 inches DBH). Operations will be ground-based and cable.

**Overall Unit Objectives:**

Objectives for this proposal include generating revenue for the Forest Board Transfer (01) and the Common School Indemnity (03); protecting water quality; maintaining site productivity, and maintaining wildlife habitat through a legacy tree retention strategy. This proposal meets or exceeds all of the guidelines and prescriptions set forth in the DNR Habitat Conservation Plan, Forest Resource Plan, and Forest Practices Rules and Regulations.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

| Type of Activity                  | How Many | Length (feet)<br>(Estimated) | Acres<br>(Estimated) | Fish Barrier Removals (#) |
|-----------------------------------|----------|------------------------------|----------------------|---------------------------|
| Temporary Construction            |          | 7450                         | 2.4                  | 0                         |
| Reconstruction                    |          | 8170                         |                      | 0                         |
| Abandonment                       |          | 0                            |                      | 0                         |
| Bridge Install/Replace            | 0        |                              |                      | 0                         |
| Culvert Install/Replace (fish)    | 0        |                              |                      | 0                         |
| Culvert Install/Replace (no fish) | 21       |                              |                      |                           |

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map. See also color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

- a. Legal description:  
**Timber sale proposal:**  
**Township 29 North, Range 8 East, Section 32 W.M.**  
**Township 28 North, Range 8 East, Section 5 W.M.**

**Rock pit:**  
**Township 29 North, Range 8 East, Section 20 W.M.**

**Road Reconstruction:**  
**Township 29 North, Range 8 East, Sections 29, 30 and 32 W.M.**

- b. Distance and direction from nearest town (include road names):  
**The proposed timber sale is located southeast of Granite Falls. Follow Menzel Lake Rd. south from Granite Falls for 5.9 miles. Continue south on the Lake Roesiger Rd. for 2.2 miles to the Monroe Camp Rd. Take the Monroe Camp Rd. 2.3 miles east, and follow the Lake Chaplain Mainline to the CH-19 road, which dead ends at the proposal area.**
- c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

| Name             | Total acres | Proposal acres |
|------------------|-------------|----------------|
| Sultan River WAU | 24,098      | 80             |
| Sub-basin 7      | 2912        | 80             |

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under "SEPA Center" for a broader landscape perspective.)

**General Watershed Administrative Unit (WAU) information**

| Name of WAU  | Acres  | DNR-managed Acres | Non-DNR-managed Acres | % DNR-managed Land in WAU | % Non-DNR-managed Land in WAU | Proposal Acres | Proposal % of total WAU | Proposal % of DNR-managed Land |
|--------------|--------|-------------------|-----------------------|---------------------------|-------------------------------|----------------|-------------------------|--------------------------------|
| Sultan River | 24,098 | 13,356            | 10,742                | 55                        | 45                            | 80             | 0.35                    | 0.63                           |

The majority of the land in the WAU is designated for timber resource use, and has been so historically.

**Past and Future DNR Activities in WAU**

**DNR Managed Lands – Past and Future Harvests**

(This proposal included as part of the estimated acreage for future harvests.) Data from DNR Database – Feb. 18, 2005

| Sultan River          | Estimated Acreage Harvested in Past 7 Years | Est. Acreage for Future Harvests | Total Est. Acreage Past and Future |
|-----------------------|---|----------------------------------|------------------------------------|
| WAU Acres             | 1857 even-age; 474 uneven-age               | 424 even-age; 0 uneven-age       | 2755                               |
| % of WAU              | 7.7% even; 2.0% uneven                      | 1.8% even; 0.0% uneven           | 11.4%                              |
| % of DNR Acres in WAU | 13.9% even; 3.5% uneven                     | 3.2% even; 0.0% uneven           | 20.6%                              |

DNR-managed land comprises most of the northeastern half of the Sultan River WAU. On DNR-managed land, past activity has included timber harvesting and associated activities – e.g. road building and abandonment, rock pit expansion, and silvicultural work. DNR future planned harvests through fiscal year 2007 consist of seven proposals. Activities on DNR-managed land will follow Forest Practices Rules, HCP guidelines, and the Forest Resource Plan – policies designed to minimize environmental impacts. Future forest management activities in both WAUs include timber harvesting and associated activities.

Other Management in WAU

In the Sultan River WAU, non-DNR harvests over the past seven years have consisted of 472 acres of even-aged, 86 acres of uneven-aged, and 44 acres of salvage harvests. Private landholdings are located mostly in the downstream reaches of the WAU in the south and southwest portions, with some private land in the northwest section as well. Cities, counties, and municipalities hold land in the lower reaches of the Sultan River and Lake Chaplain, and the US Forest Service manages land in the upper reaches of the Sultan River. In the southwest portion, the town of Sultan and residences intermix with farming and livestock. Further northward lay mainly residences and forestland. Areas to the northeast of DNR-managed landholdings consist mainly of Federal forestland (1,725 acres total Federal ownership).

Environmental Conditions

Environmental conditions of note occurring within the Sultan River WAU include the presence of marbled murrelet detection sites and hemlock looper infestations. Approximately 13 murrelet detection status 4 sites and at least two murrelet detection status 3 sites have been identified within the Sultan River WAU. However, the proposal is not located near any marbled murrelet presence or occupied detections (the closest detections are located approximately 1 ½ to two miles to the east). Also within the WAU, approximately 40% (9,639 acres) were infested with the hemlock looper between 2001-2003.

Future forest management activities on privately managed, non-DNR lands in both WAUs will be subject to Forest Practice Rules.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☒Flat, ☐Rolling, ☐Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

|   | Within Sultan River WAU | Within Sub-basins containing proposal (7) | Within Proposal Area      |
|---|-------------------------|---|---------------------------|
| Rainfall Range (Inches per Year)                | 50"-90"                 | 50"                                       |                           |
| Elevation (feet)                                | 89' to 3,094'           | 468' to 1751'                             | 854' to 1026'             |
| Acres in peak rain-on-snow zone                 | 3,483 (14%)             | 0 (0%)                                    | None (all rain-dominated) |
| % of area with high soil erosion potential      | 11%                     | 5%  | None (low)                |
| % of area with high soil mass wasting potential | 2%                      | 5%  | None (insignificant)      |

The Sultan River WAU consists of level to rolling terrain in western areas and gradually moves towards hilly topography with occasional rock outcrops and steeper slopes in the northeastern section. Elevation ranges from 89 feet above sea level to 3,094 feet (Mean = 1,002 ft.). The WAU has a maritime climate with cool wet winters and mild summers. The southward-flowing Sultan River bisects the WAU. Approximately 66% of the total WAU acreage falls within the rain-dominated zone receiving 50-90 inches per year, while approximately 14% falls in peak rain-on-snow zones.

Conifers dominate forest stands in this region and are composed primarily of western hemlock, with western redcedar in lower, wetter areas and Douglas fir in higher and drier areas. Red alder, black cottonwood and big leaf maple are found in smaller stands throughout the WAU, and patches of silver fir are located in higher areas. The forest vegetation zone is Westside Western Hemlock.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s). Western hemlock and Douglas fir are the dominant tree species within the proposal area. The proposal area is mostly flat, and it contains several narrow, linear wetlands. Soil erosion and mass wasting potential are low and insignificant in the flat portions of the proposal area. There is evidence of mass wasting on the steeper portions of the proposal area. There is a potential for ground-based equipment to cause rutting and soil compaction in wet conditions.

b. What is the steepest slope on the site (approximate percent slope)? 60 %

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

| State Soil Survey #           | Soil Texture             | % Slope | Acres | Mass Wasting Potential | Erosion Potential |
|-------------------------------|--------------------------|---------|-------|------------------------|-------------------|
| 1949: Elwell                  | Silt loam                | 3-30%   | 77    | Insignificant          | Low               |
| 1955: Elwell-Olomount-Complex | Silt loam, gravelly loam | 15-30%  | 2     | Insignificant          | Low               |
| 5617: Ogarty-Tokul-Rock       | Very gravelly loam, silt | 65-90   | 1     | High                   | High              |

|                 |      |  |  |  |  |
|-----------------|------|--|--|--|--|
| Outcrop Complex | loam |  |  |  |  |
|-----------------|------|--|--|--|--|

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
- 1) *Surface indications:*  
**There are several old, shallow, rapid slope failures immediately down slope of the proposal area on the steep valley wall of the Sultan River. There is also newer slope failure on the valley wall of the Sultan River. These areas were excluded from the proposal area.**
  - 2) *Is there evidence of natural slope failures in the sub-basin(s)?*  
☐ No ☒ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:  
**See B.1.d.1. Additionally, there may be shallow, rapid failures along the steep banks of the type 3 stream that forms the south and west boundaries of the sale. These steep banks lie within the no harvest RMZ buffer, so no activity will take place near them.**
  - 3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*  
☒ No ☐ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:  
**Associated management activity: None known.**
  - 4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*  
☒ No ☐ Yes, describe similarities between the conditions and activities on these sites:
  - 5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*  
**The region geologist identified one mass wasting area to be bounded out of the sale on the Sultan River valley wall. Additionally, a small leave tree area was also placed adjacent to the failure to provide extra protection. The sale boundary was designed to avoid unstable areas on the eastern side of the sale. Roads were located to avoid slopes greater than 20% and cable yarding will be used on the eastern side of the sale where side slopes are steeper and possibly unstable. In the southeastern corner of the sale it was decided that a mid-span support could be used for yarding timber rather than bringing the road closer to steep, possibly unstable slopes.**
- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.  
*Approx. acreage new roads: 2.4 Approx. acreage new landings: 2 Fill source: Native fill, CH-45 hardrock pit*
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.  
**Some localized erosion could occur during road construction and log transportation activities. However, prudent road construction techniques and normal maintenance practices will minimize the amount of erosion.**
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads): 3% will remain forest road.*
- h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:  
*(Include protection measures for minimizing compaction or rutting.)*  
**To control road-related erosion, road pioneering will not extend more than approximately 500 feet beyond completed construction, culverts will be installed concurrently with construction of the road subgrade, and culvert outlets will not terminate on unprotected soils. All exposed soils resulting from road construction will be revegetated or a protective cover will be applied prior to July 31 of the year the roads are constructed. All new roads will be abandoned post-harvest. A 30-foot equipment limitation zone will be applied to the Type 5 stream.**

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.  
**No emissions are anticipated other than minor amounts of equipment exhaust and road dust created by log hauling activities. If burned, slash will be burned in adherence to WA State's smoke management program.**
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.  
**None**
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:  
**If slash is burned, it will be burned in adherence to the State's Smoke Management Program.**

3. Water

- a. Surface:
- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*
    - a) *Downstream water bodies:* **Sultan River**
    - b) *Complete the following riparian & wetland management zone table:*

| Wetland, Stream, Lake, Pond, or Saltwater Name (if any) | Water Type | Number (how many?) | Avg RMZ/WMZ Width in Feet (per side for streams) |
|---|------------|--------------------|--|
| Wetland (≥ 1 ac.)                                       | Forested   | 3                  | 160  |
| Wetland (≥ 0.25 ac. and < 1 ac.                         | Forested   | 2                  | 100  |

|        |   |   |                                   |
|--------|---|---|-----------------------------------|
| Stream | 3 | 2 | 160                               |
| Stream | 4 | 7 | 100                               |
| Stream | 5 | 1 | 30 foot equipment limitation zone |

- c) *List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.*
- The two forested wetlands that are larger than one acre have a 160-foot buffer. The ROW extends through the eastern portion of the northern wetland buffer. The area of the ROW inside the buffer was calculated, and that area was added to the north side of the wetland buffer.
  - The three forested wetlands that are between 0.25 and one acre in size have a 100-foot buffer.
  - Take trees are marked in all wetland buffers to leave more than 150 square feet of basal area per acre after harvest.
  - Type 4 streams will be protected with a 100-foot no harvest buffer.
  - The type 5 stream will be protected with a 30-foot equipment limitation zone.
  - All existing and constructed road through any RMZs will be monitored during hauling to ensure ditchwater and road runoff will not enter or otherwise adversely affect water quality or RMZ function. Mitigation such as straw bales, silt fencing, rock-lined ditches, and sediment traps will be installed/constructed if necessary.
  - Ditch water will be diverted through relief culverts prior to stream crossing to keep sediment out of streams. Exposed soils will be grass seeded.
  - Type 3 streams will be protected with a 160-foot no harvest site index buffer. The streams are less than 5 feet wide so no wind buffer was applied.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.  
☐No ☒Yes (See RMZ/WMZ table above and timber sale map.)  
*Description (include culverts):*  
Two type 4 stream crossings will be constructed as part of this proposal. The road right-of-way extends through both a stream buffer and a wetland buffer at the north end of the proposal area. The north side of the north wetland buffer was widened to mitigate for the loss of the wetland buffer to the ROW. The road will be constructed to ensure ditchwater and runoff will not enter or otherwise adversely affect water quality or RMZ/WMZ function. The culverts at these crossings are designed to handle a 100-year flood event and will be removed at contract termination.
- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.  
None
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)  
☐No ☒Yes, *description:*  
Flowing streams may be diverted during culvert installation.
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.  
☒No ☐Yes, *describe location:*
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.  
☒No ☐Yes, *type and volume:*
- 7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*

|                        |               | Sultan River<br>WAU sub-basin 7 |
|------------------------|---------------|---------------------------------|
| Soil erosion potential | High          | 5%                              |
|                        | Medium        | 3%                              |
|                        | Low           | 91%                             |
|                        | No data       | 1%                              |
| Mass wasting potential | High          | 5%                              |
|                        | Medium        | 3%                              |
|                        | Insignificant | 91%                             |
|                        | No data       | 1%                              |

Erosion and mass wasting potential are low for most soils in Sultan River sub-basin 7. Anticipated potential for eroded material entering surface water due to proposal activities is low. Potentially unstable slopes were bounded out of the timber sale, and wetlands and streams within the proposal all have buffers.

- 8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*  
No ☒Yes, *describe changes and possible causes:*  
In the Sultan River WAU, erosion is occurring in the steep slopes within the inner gorges of major tributaries as they undercut slopes, especially in the small streams on the north and northwest flanks of Blue Mountain. Flow of the Sultan River is controlled by releases from the dam on Spada Lake at the upstream extent of the Sultan River WAU.
- 9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*  
☒No ☐Yes, *explain:*
- 10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?  
☒No   ☐Yes, describe:

| WAU name     | Road miles per square mile |
|--------------|----------------------------|
| Sultan River | 3.8                        |
| Sub-basin 7  | 4.1                        |

11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.  
☒No   ☐Yes, approximate percent of WAU in significant ROS zone.  
Approximate percent of sub-basin(s):

12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?  
☐No   ☒Yes, describe observations:  
**See B.3.a.8. The degree to which observed channel changes are due to mass wasting/**-----  
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**surface erosion versus peak stream flow is not known.**

14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.  
**This proposal should not provide any significant contribution to peak flow impacts in the Sultan River WAU since the proposal is located in the rain-dominated portion of the Sultan River WAU.**

15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?  
☐No   ☒Yes, possible impacts:  
**The Sultan River is downstream of the proposal area, but no changes in surface water amounts, quality or movement are expected as a result of the proposed activity. Additionally, measures described in B.3.a.1c, will help prevent adverse impacts.**

16) Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.  
**See B.3.a.1.c.**

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.  
**Channeling water through ditches and culverts emptying out onto the forest floor will increase surface saturation in localized areas, but is not expected to increase ground water.**
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.  
**Small amounts of oil and other lubricants could be discharged inadvertently as a result of heavy equipment use. No lubricants will be disposed of on site.**
- 3) Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?  
☒No   ☐Yes, describe:  
a) Note protection measures, if any.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.  
**Runoff from the road surfaces will be collected in ditches and diverted to the forest floor through the uses of ditches, culverts, and energy dissipaters.**
- 2) Could waste materials enter ground or surface waters? If so, generally describe.  
**It is not anticipated that waste material will enter ground or surface water as a result of this proposal.**  
a) Note protection measures, if any.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)  
**Constructed ditches, cross-drain culverts, drain dips, and water bars will be used to control runoff. Straw, grass seeding, or other appropriate methods may be used on any soil exposed during the course of this proposal in order to prevent sediment movement. Roads and landings will be crowned to avoid water accumulation. Falling and yarding away from all seasonal streams will be applied when feasible. All activities associated with this proposal will meet or exceed Forest Practices standards and the Habitat Conservation Plan.**

#### 4. Plants

- a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☐cottonwood, ☐western larch, ☐birch, ☐other:  
☒evergreen tree: ☒Douglas fir, ☐grand fir, ☐Pacific silver fir, ☐ponderosa pine, ☐lodgepole pine,  
☒western hemlock, ☐mountain hemlock, ☐Englemann spruce, ☐Sitka spruce,  
☒red cedar, ☐yellow cedar, ☐other:  
☒shrubs: ☒huckleberry, ☒salmonberry, ☒salal, ☒other: **Oregon grape**  
☒grass  
☐pasture  
☐crop or grain  
☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☒devil's club, ☐other:  
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:  
☐other types of vegetation:  
☐plant communities of concern:

- b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")  
**There is a 54-year old hemlock dominated stand to the north of the proposal area. It was thinned in 1999. Stands to the west of the type 3 water on west boundary of the proposal area are similar to those within the proposal area. There is also a forested wetland complex that contains large diameter Sitka spruce and western red cedar. A stand similar to the proposal area, and a four-year-old Douglas fir, western hemlock, western redcedar plantation is to the south of the proposal area. The stand to the east of the proposal area is similar to the proposal area.**
- 2) Retention tree plan:  
**All trees were clumped because of the high potential for blowdown. As a rule, trees selected for retention were in the dominant or co-dominant crown classes, contain or buffer structural characteristics important to wildlife, and/or show wind firmness. Leave tree clumps were left to provide buffers for existing snags. The combination of the riparian management zones and legacy trees will enhance the structural diversity of the future stand, and they will potentially serve as wildlife habitat.**

- c. List threatened or endangered *plant* species known to be on or near the site.

**None found in database search of DNR's TRAX system.**

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

**Wildlife and green retention trees will be left on site in clumps. Native conifer trees (Douglas-fir and redcedar at approximately 360 stems/acre) will be planted upon completion of the proposal. Soils exposed due to road construction will be grass-seeded and mulched prior to completion of this proposal. (Refer to B-4-b-2).**

#### 5. Animal

- a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐pigeon, ☒other: raven, pileated woodpecker  
mammals: ☒deer, ☐bear, ☐elk, ☐beaver, ☐other:  
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:  
unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

**None found in database search of DNR's TRAX system.**

- c. Is the site part of a migration route? If so, explain.

☒Pacific flyway ☐Other migration route: Explain if any boxes checked:  
**All of Washington State is considered part of the Pacific flyway. No adverse impacts are anticipated as a result of this proposal being completed.**

- d. Proposed measures to preserve or enhance wildlife, if any:

- 1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.  
Species /Habitat: Protection Measures:

##### Riparian Habitat

**The following measures are intended to maintain watercourse temperatures, minimize disturbance to riparian vegetation, and/or minimize potential deliverables to streams: No-cut riparian buffers are established around streams. Falling and yarding away from all seasonal streams will be applied when feasible. Constructed ditches, cross-drain culverts, drain dips, and water bars will be used to control runoff along roads. Roads and landings will be crowned to avoid water accumulation. Straw, grass seeding, or other**



appropriate methods may be used on any soil exposed on cut and fill slopes during the course of this proposal in order to prevent sediment movement.

**Wildlife Habitat**

Legacy retention trees will serve to maintain elements of varied wildlife habitat and all buffers will assist wildlife corridors.

All activities associated with this proposal will meet or exceed Forest Practices standards and the Habitat Conservation Plan. (See also B-1-h, B-3-a-1-b, B-3-a-1-c, B-3-d, B-4-b-2 and B-4-d)

**6. Energy and Natural Resources**

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.  
**Does not apply**
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.  
**Does not apply**
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:  
**Does not apply**

**7. Environmental Health**

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.  
**There is minimal hazard from heavy equipment operations. There is a slight chance of hydraulic or oil spills from equipment operating on the site. There is also a potential fire hazard if operations occur in moderate to severe fire weather conditions during summer months.**
  - 1) Describe special emergency services that might be required.  
**Does not apply**
  - 2) Proposed measures to reduce or control environmental health hazards, if any:  
**Safe operation of all equipment will be encouraged. Industrial restrictions and precaution levels regarding forest fire protection will be enforced. The timber purchaser will be required to have fire suppression equipment on site during the restricted fire season while harvest activity is ongoing.**
- b. Noise
  - 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?  
**None**
  - 2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.  
**Noise from road construction and harvest activity will be present in the immediate vicinity of this proposal during operations. Noise from log hauling will be present along the haul routes during operations.**
  - 3) Proposed measures to reduce or control noise impacts, if any:  
**None. Noise associated with harvest and road construction activity will be minimal anywhere but in the immediate vicinity of the proposal. Harvest activity and log hauling are historic activities in the area and noise should not be present above customary levels.**

**8. Land and Shoreline Use**

- a. What is the current use of the site and adjacent properties? (Site includes the complete proposal, e.g. rock pits and access roads.)  
**Forest management**
- b. Has the site been used for agriculture? If so, describe.  
**No**
- c. Describe any structures on the site.  
**None**
- d. Will any structures be demolished? If so, what?  
**No**
- e. What is the current zoning classification of the site?  
**Commercial Forest Land**
- f. What is the current comprehensive plan designation of the site?  
**Forestry**
- g. If applicable, what is the current shoreline master program designation of the site?  
**Does not apply**
- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.  
**No**
- i. Approximately how many people would reside or work in the completed project?  
**None**

- j. Approximately how many people would the completed project displace?  
**None**
- k. Proposed measures to avoid or reduce displacement impacts, if any:  
**None**
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:  
**This project is consistent with current comprehensive plans and zoning regulations.**

**9. Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.  
**Does not apply**
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.  
**Does not apply**
- c. Proposed measures to reduce or control housing impacts, if any:  
**Does not apply**

**10. Aesthetics**

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?  
**Does not apply**
- b. What views in the immediate vicinity would be altered or obstructed?
  - 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*  
☒ **No**   ☐ **Yes, viewing location:**
  - 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*  
☒ **No**   ☐ **Yes, scenic corridor name:**
  - 3) *How will this proposal affect any views described in 1) or 2) above?*
- c. Proposed measures to reduce or control aesthetic impacts, if any:

**11. Light and Glare**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?  
**None**
- b. Could light or glare from the finished project be a safety hazard or interfere with views?  
**No**
- c. What existing off-site sources of light or glare may affect your proposal?  
**None**
- d. Proposed measures to reduce or control light and glare impacts, if any:  
**Does not apply**

**12. Recreation**

- a. What designated and informal recreational opportunities are in the immediate vicinity?  
**No designated recreational opportunities currently exist. Informal use may include hunting, fishing, camping, hiking, mountain biking, horseback riding.**
- b. Would the proposed project displace any existing recreational uses? If so, describe:  
**The road systems associated with this proposal are currently gated and closed to highway vehicle use. Use of the proposal area by other users may be limited during the course of operations due to safety/security concerns. No permanent displacement of existing use will occur as a result of this proposal.**
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:  
**None.**

**13. Historic and Cultural Preservation**

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.  
**None known**
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.  
**None known**

- c. Proposed measures to reduce or control impacts, if any:  
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

**None needed**

**14. Transportation**

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

**There are no public streets or highways that serve the site. There will be no addition of public roads to access the site or as a result of this proposal.**

- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

**No**

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

**No**

- c. How many parking spaces would the completed project have? How many would the project eliminate?

**None**

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

**No**

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

**There are no expected adverse impacts on the overall transportation system of the surrounding area.**

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

**No**

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

**0.01 trips per day (average of four trips a year) for management purposes, for the first 5-10 years after the completion of the proposal.**

- g. Proposed measures to reduce or control transportation impacts, if any:

**Due to the lack of impact on existing transportation, no reduction or control measures will be needed.**

**15. Public Services**

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

**No**

- b. Proposed measures to reduce or control direct impacts on public services, if any.

**Access will be restricted as needed during periods of extreme fire danger.**

**16. Utilities**

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

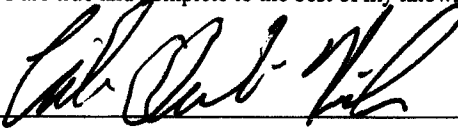
**Does not apply**

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

**Does not apply**

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by:  Boulder Unit Forester Title: 7/24/06 Date:

Reviewed by: N/A Title: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: N/A Title: \_\_\_\_\_ Date: \_\_\_\_\_